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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,947	01/03/2001	Ronald Pfaff	BEI-698-WG	8318

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03/27/2002

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EXAMINER

ZIRKER, DANIEL R

ART UNIT	PAPER NUMBER
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1771

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DATE MAILED: 03/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE -3- MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-19 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 9-19 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____
- ☒ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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1. The Examiner notes that pursuant to the Rule 1.26 newly presented claims 11-21 have been correctly renumbered as 9-19 since only claims 1-8 were previously in the application and may have been cancelled.

2. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9-19 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More particularly, claims 9-14 and 16 each depend upon cancelled claim 1 instead of new claim 9. In a similar vein, claims 17-19 are currently dependent upon their incorrectly numbered parent claim. In claims 10 and 18 proper Markush language should be utilized and additionally in claim 10 the phrase "such as nitrile rubbers in particular" is clearly improper. In claim 14 the phrase "as the module" lacks any sort of antecedent basis.

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences

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between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9-13 and 16-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over EPA 0140619A2. The reference discloses (note particularly page 7 lines 5-20, page 8 lines 21-28, page 9 line 25 - page 10 line 24, page 11 line 16 - page 12 line 6, Examples 1 and 2) an anisotropic, electrically conductive adhesive film suitable for connecting small electrical components such as microchips. The film consists of a polymer mixture in which electrically conductive particles are dispersed. These particles may include silver and silver coated glass beads (page 8, lines 20-28). The list of polymers from which the adhesive film may be formed includes both thermoplastic polymers and heat-curable polymers and tackifying resins (page 9 line 25 - page 10 line 20). Examples 1 and 2 do not appear to expressly teach the claimed range of proportions in applicant's claim 9, but otherwise describe the production of an adhesive film using silver coated glass beads, an ethylene-vinyl acetate copolymer and a tackifying resin (rosin tackifier). The resulting film exhibits excellent conductivity in the thickness direction of the adhesive film, with the diameter of the adhesive film being at least 110% of that of the particles. Note also that

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applicant's independent claim 1 does not limit the diameter of the silver particles.

6. Claims 9-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over EP 0846743A1 Patent Abstract or its complete German original taken in view of EPA 0134623A2. The primary reference discloses substantially an anticipation of both the claimed electrically conductive adhesive film and the accompanying method for implanting electrical modules in a car body except for the notable absence of a teaching of silver coated glass beads or silver particles being present in the disclosed adhesive composition. The reference in the original German further discloses (page 4 lines 1-2) that metal particles may be used to provide electrical conductivity in the adhesive composition (note also claim 3). The reference discloses the use of an adhesive film as being suitable for implanting electrical components in semiconductors in conjunction with powdered metals. The secondary reference discloses (note particularly the Abstract, page 2 lines 15-36, page 4 line 37 - page 5 line 6, page 6 lines 9-23, page 7 lines 5-11) a transfer tape which contains electrically conductive particles such as silver which are preferably spherical and are larger than the thickness of the adhesive film between the particles. When used to bond two rigid substrates together, pressure is applied to the substrates to flatten the particles to the thickness of the adhesive between

the particles, thus making good electrical connection between the substrates through each particle. As such, a person skilled in the art would know that he could use silver particles having diameters which exceed the adhesive layer thickness in order to improve the electrical conductivity. The fact that the particles may be deformed is not pertinent since the particles are not required to be spherical in nature. One of ordinary skill, motivated by both the fact that the primary reference discloses that electrical conductivity may be enhanced by the use of metal particles in the adhesive film would naturally look to the disclosure of the closely related adhesive of the secondary reference, and thereby incorporate the silver particles taught therein into the adhesive layer films of the primary reference thereby forming the claimed adhesive film and accompanying process. With respect to the dependent claims, these are believed to be, if not expressly or inherently disclosed, obvious modifications to one of ordinary skill, in the absence of unexpected results.

7. Claims 9-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over DE 19519499A1 Patent Abstract taken in view of EPA -623. The primary reference discloses a very closely related thermoplastic adhesive film and accompanying method of implanting electrical modules into cavities in a card to the previously analyzed EP -743. The modules have electrical

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connection points which are linked to the contact surfaces by electrical conductors, with a suitable adhesive film being used to bond its opposite side to the card. The film comprises a suitable thermoplastic polymer, one or more tacky resins or, in the alternative a suitable epoxy resin and its curing agent. The reference appears to lack a teaching of the presence of suitable metallic particles such as silver or silver coated glass beads. However, the secondary reference discloses such elements and is again relied upon in similar manner as set forth in the prior rejection. One of ordinary skill, having more than ample motivation to combine the two references which are taken from closely related arts would do so and thereby form the claimed genus of articles and accompanying method. With respect to the dependent claims, these are again treated as previously set forth above, in the absence of unexpected results.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Zirker whose telephone number is (703) 308-0031. The examiner can normally be reached on Monday-Thursday from 8:30 A.M. to 6:00 P.M. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris, can be reached on (703) 308-2414. The fax phone number for this Group is (703) 872-9310.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Dzirker:cdc

March 22, 2002

**DANIEL ZIRKER
PRIMARY EXAMINER
GROUP 1300**

Daniel Zinker